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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/171,690 10/23/98 KANZLER

H 4501

EXAMINER

PM82/0423

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ART UNIT

PAPER NUMBER

3611
DATE MAILED:

04/23/01

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/171,690	Applicant(s) Kanzler et al.	
	Examiner Frank Vanaman	Art Unit 3611	
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>			
Period for Reply			
<p>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.</p>			
<ul style="list-style-type: none"> - Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). 			
Status			
<p>1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>Feb 6, 2001</u></p>			
<p>2a) <input checked="" type="checkbox"/> This action is FINAL. 2b) <input type="checkbox"/> This action is non-final.</p>			
<p>3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11; 453 O.G. 213.</p>			
Disposition of Claims			
<p>4) <input checked="" type="checkbox"/> Claim(s) <u>1-29</u> is/are pending in the application.</p>			
<p>4a) Of the above, claim(s) <u>4, 8, 11-16, 20, 21, 27, and 29</u> is/are withdrawn from consideration.</p>			
<p>5) <input type="checkbox"/> Claim(s) _____ is/are allowed.</p>			
<p>6) <input checked="" type="checkbox"/> Claim(s) <u>1-3, 5-7, 9, 10, 17-19, 22-26, and 28</u> is/are rejected.</p>			
<p>7) <input type="checkbox"/> Claim(s) _____ is/are objected to.</p>			
<p>8) <input type="checkbox"/> Claims _____ are subject to restriction and/or election requirement.</p>			
Application Papers			
<p>9) <input checked="" type="checkbox"/> The specification is objected to by the Examiner.</p>			
<p>10) <input checked="" type="checkbox"/> The drawing(s) filed on <u>Oct 23, 1998</u> is/are objected to by the Examiner.</p>			
<p>11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a)<input type="checkbox"/> approved b)<input type="checkbox"/> disapproved.</p>			
<p>12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>			
Priority under 35 U.S.C. § 119			
<p>13) <input type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).</p>			
<p>a) <input type="checkbox"/> All b) <input type="checkbox"/> Some* c) <input type="checkbox"/> None of:</p>			
<p>1. <input type="checkbox"/> Certified copies of the priority documents have been received.</p>			
<p>2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.</p>			
<p>3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</p>			
<p>*See the attached detailed Office action for a list of the certified copies not received.</p>			
<p>14) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).</p>			
Attachment(s)			
<p>15) <input type="checkbox"/> Notice of References Cited (PTO-892) 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____</p>			
<p>16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p>			
<p>17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) <input type="checkbox"/> Other: _____</p>			

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Status of Application

1. Claims 1-29 are pending, claims 28 and 29 having been added by the most recent amendment. Claims 4, 8, 11-16, 20, 21 and 27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species.
2. Newly submitted claim 29 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 29 is directed to the use of a single motor driving more than a single track, wherein a steering gear is provided, which feature is disclosed only with respect to figure 2, which is directed to Species II, which was non-elected without traverse by applicant in Paper No. 9. Note the specification at page 13, line 20, through page 14, line 18, which refers to the embodiment of figure 2, and wherein the only reference to the steering gear is made.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 29 is additionally withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. An office action on the merits of claims 1-3, 5-7, 9, 10, 17-19, 22-26 and 28 follows.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the snow plow blower, the tilting device for a platform, the tilting device for a driver's cab, the track tensioner, the electronic engine control, all vehicle components being "composed in the manner of modules", the traveling direction switch and the parking brake must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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5. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

Specification

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The term "piste" is not in common usage in the English Language. It appears as though the term is being used as an equivalent to "path", "trail" or "track", the appropriate one of which should replace "piste".

7. The disclosure is objected to because of the following informalities: in the specification, the use of the non-English term "piste" is informal.

8. The specification is objected to under 37 CFR 1.71 because it fails to provide a complete written description of the invention. On page 7, it is not at all clear how a purely electric operation of the vehicle can achieve any weight reduction absent a physical reconfiguration of the vehicle. On page 9, the specification refers to the adjusting of a gear ratio of a snow plow shaft by a potentiometer, however the specification fails to provide any further details as to the structure which would allow such an adjustment to be made. On pages 8-10, the specification refers to an optimization of consumption, however, the specification fails to set forth how this optimization is achieved.

Claim Rejections - 35 USC § 112

9. Claims 19 and 25 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 19 refers to consumption-optimum speed for the engine, however

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the specification fails to set forth how such an optimization may be achieved, as noted in the specification objections above.

Claims 1-3, 5-7, 9, 10, 17-19, 22-26 and 28 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The claims appear to be a direct translation from a foreign language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. Note the format of the claims in the patent(s) cited.

Some examples of indefinite or confusing language are cited below; this is not a complete listing: in claim 1, line 1, the term "piste" is not descriptive; in claim 1, line 5, it is not clear whether or not the terms following "such as" are part of the claimed invention; in claim 1, line 9, "said rotary snow plow" lacks a clear antecedent basis (note applicant's own amendment to line 4 which deletes the earlier recitation of a rotary snow plow); in claim 3, lines 1-2, the recitation of a gear 'arranged' between the motor and sprocket is confusing in that a gear has already been positively recited (claim 1, line 7); in claim 5, line 2, it is unclear whether or not the recitation associated with the term "may" is part of the invention; in claim 10, line 3, the phrase "are composed in the manner of modules" is confusing; in claim 28, the recitation of a rotary snow plow is confusing in view of the recitation of claim 1, line 9; etc.

Each and every claim should be carefully reviewed and revised for clarity and definiteness under 35 USC §112, second paragraph; all terms should be provided with a clear antecedent basis in the recitations.

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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11. Claims 1, 2, 5, 6, 9, 10, 17 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan Manufacturing Company (WO 94/09548; "Logan") in view of Buchdrucker (US 5,018,592). The Logan reference teaches a vehicle (10) having an internal combustion engine module (13d), drivingly connected through a planetary gear set module (page 13, line 1) to a drive sprocket module (14) of a track (11) and having accessory drives (16) of additional vehicle modules (page 12, lines 14-15), including an electrically powered implement module (12) driven by rotary electric motors (35t), the internal combustion engine connected to a generator module (13), and a pair of electric motor modules (35) for directly driving the tracks, possibly including a gear (page 12, line 7) associated with each drive sprocket, and wherein regenerative braking may be had by driving the motors as generators (page 5, lines 14-23), the regenerated energy being stored in a battery (page 5, line 22), the operation of all of the motors and accessories being controlled by a electronic controller (98) located centrally of the vehicle, the vehicle of Logan being provided with a heating means in the form of a resistance grid (page 5, line 23) which is fed with waste electrical energy from the drive motors, under certain stopping and slowing conditions, the vehicle further provided with a parking brake which is automatically actuated in response to the deactivation of the drives (page 5, lines 11-14).

Logan fails to teach the implement as being a rotary snow plow synchronized to the electric driving motors. Buchdrucker teaches a driving vehicle having a motor (15) a rotary snow plow (18) and driven wheels (31, 32) wherein the operation of the plow and wheels may be synchronized, through the operation of clutches (16, 17, 20 and 21). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a snow plow as an implement to the vehicle of Logan as suggested by Buchdrucker for the purpose of clearing accumulated snow from a desired area. The reference of Logan as modified by Buchdrucker fails to specifically teach the snow plow as being operated from an electric motor, however in view of the teachings of Logan as directed to rotary implements (12) being electrically powered, it would have been obvious to one of ordinary skill in the art at the time of the invention to power the plow

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electrically. Further, in view of the synchronization taught by Buchdrucker, it would have been obvious to one of ordinary skill in the art at the time of the invention to operate the implement-driving electric motor in synchronization with the driving motors for the purpose of conserving energy when the vehicle is stopped, the use of the snow plow being redundant in a stopped condition.

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Buchdrucker and Ossi (US 5,101,919). The reference of Logan as modified by Buchdrucker is discussed above and fails to teach the provision of a single electric motor driving both sprockets and including a steering gear. Ossi teaches a dual track (12, 14, 16, 18) driving system which derives its power from a single source (engine 20) and includes a differential steering mechanism (40, 42, 48, etc.) including a plurality of planetary gear sets for allowing turning of the vehicle. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a differential steering system with a plurality of steering gears as taught by Ossi to the vehicle of Logan as modified by Buchdrucker for the purpose of requiring only a single drive motor, rather than a pair.

13. Claims 7, 18, 19 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Buchdrucker and Kawakatsu (US 4,335,429). The reference of Logan as modified by Buchdrucker is discussed above and fails to teach an electronic engine control, a traveling speed set point device such as an accelerator directed to both the engine and motors, a device for determining consumption-optimum engine speeds, and means for sensing the accelerator and brake conditions. Kawakatsu teaches a hybrid drive system involving both an engine (1) and a plurality of motor-generators (5, 7), the vehicle provided with an overall controller (35, figure 4), which receives information from a speed set point transmitting element such as an accelerator (67, 67a), a brake (69, 69b), outputs driving speed information to both an

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electric motor (AP[H]) and the engine ((AP[E]) through a converting engine controller (17), and wherein the controller includes an evaluation section for determining an optimum consumption (figures 1, 2, 8, 9, 10a, 10b) and driving configuration based on traveling conditions.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the traveling speed set point device and brake device as taught by Kawakatsu to the vehicle of Logan as modified by Buchdrucker for the purpose of allowing the user to control the motion of the vehicle. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a separate engine control device as taught by Kawakatsu to control the engine of the vehicle of Logan as modified by Buchdrucker so as to allow a single common controller to be operable with numerous different capacity engines, requiring only a change in the transfer function of the engine controller. Further it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the consumption optimization taught by Kawakatsu for the vehicle of Logan as modified by Buchdrucker for the purpose of determining an appropriate and efficient operating characteristic, based on sensed driving conditions.

14. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Buchdrucker, Kawakatsu and Tsutsui et al (US 5,649,880). The reference of Logan as modified by Buchdrucker and Kawakatsu is discussed above and fails to teach a shift position detection device. Tsutsui teaches a transmission control scheme including a hill-hold function and a fail safe, wherein a shift position is determined (Step 2-2-4-4) as a part of the failsafe routine. It would have been obvious to one of ordinary skill in the art at the time of the invention to further determine a transmission shift position as suggested by Tsutsui in the vehicle of Logan as modified by Buchdrucker and Kawakatsu for the purpose of applying a stopping hill-hold function which determines a proposed direction of travel as set by the driver.

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Response to Arguments

15. Applicant's comments with respect to the Drawing objections are noted. Applicant is reminded of the content of 37 CFR 1.83:

The drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box).

The examiner notes that the claimed features are not shown at all, and the examiner further notes that applicant has failed to provide a proposed drawing correction in response to the objection set forth previously.

As regards the use of the term 'piste', applicant's comments have been carefully considered but are not persuasive. The presence of the term in 23 patent documents issued between 1996 and 2000 (23 documents among 689,474 utility patents issued in the same time period; a ratio of 1 document in about 29,977) is not sufficient to suggest a common usage. The examiner further notes that applicant has failed to provide a common English-language dictionary citation of the term, which is evidence strongly suggesting that this term indeed is not in common usage in the English language.

Applicant's comments concerning the weight reduction of the vehicle associated with the removal of fluids are noted, however the specification as filed fails to refer to any reconfiguration of the vehicle. A single sentence suggesting that certain items 'can be dispensed with' fails to provide a sufficient disclosure to allow a physical reconfiguration of the vehicle, which reconfiguration appears to be necessary for such a weight reduction. As regards applicant's comments directed to the use of a set point transmitter and vehicle control unit to simply 'calculate and control the consumption optimization' the examiner notes that the specification fails to provide a description of how such an optimization can actually be carried out.

In response to applicant's argument that the references must explicitly provide a suggestion for combining, a conclusion of obviousness may be made from common knowledge

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and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference (see *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)), with skill being presumed on the part of the artisan, rather than the lack thereof (see *In re Sovish* 769 F.2d 738, 742, 226 USPQ 771, 774 (Fed. Cir. 1985)); further, references may be combined although none of them explicitly suggests combining one with the other (see *In re Nilssen* 7 USPQ2d 1500 (Fed. Cir. 1989)).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant has suggested that the mechanical nature of the coupling of the snow plow in Buchdrucker would tend to teach against the use of a synchronized plow in Logan, however in view of the reference of Logan already teaching a separately controllable attachment (12) powered by electric motors, it is not considered to be beyond the skill of the ordinary practitioner to use a plow as suggested by the reference to Buchdrucker as the attachment. As regards the synchronization, as noted previously, it is not considered to be beyond the skill of the ordinary practitioner to operate the implement-driving electric motor in synchronization with the driving motors for the purpose of conserving energy when the vehicle is stopped, the use of the snow plow being redundant in a stopped condition.

Conclusion

16. Applicant is reminded that claims 4, 8, 11-16, 20, 21, 27 and 29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species.

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17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is (703) 308-0424. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

Assistant Commissioner for Patents

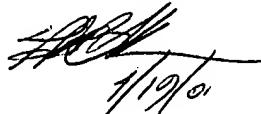
Washington, DC 20231

or faxed to :

(703) 305-3597 or 305-7687 (for formal communications intended for entry; informal or draft communications may be faxed to the same number but should be clearly labeled "UNOFFICIAL" or "DRAFT")

F. VANAMAN
Primary Examiner
Art Unit 3611

F. Vanaman
April 19, 2001


4/19/01